

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: STREETWORKS

Report Number: P214939

Luminaire Tested: **ARCH-AF24-40-D-U-T4W-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214939  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-40-D-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3700 lumens  
Efficiency: N/A  
Efficacy: 92.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G2

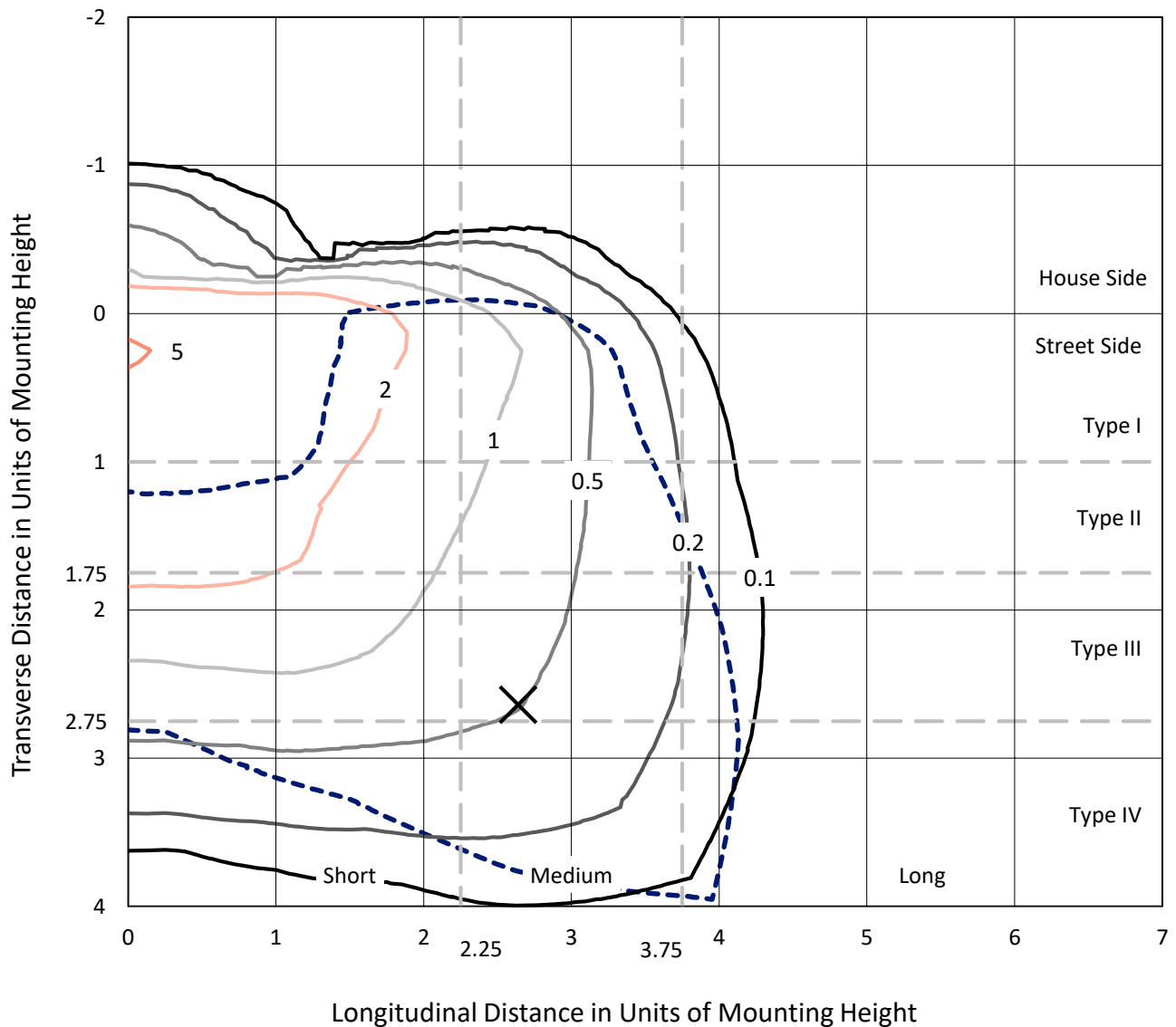
Input Watts (W): 40  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

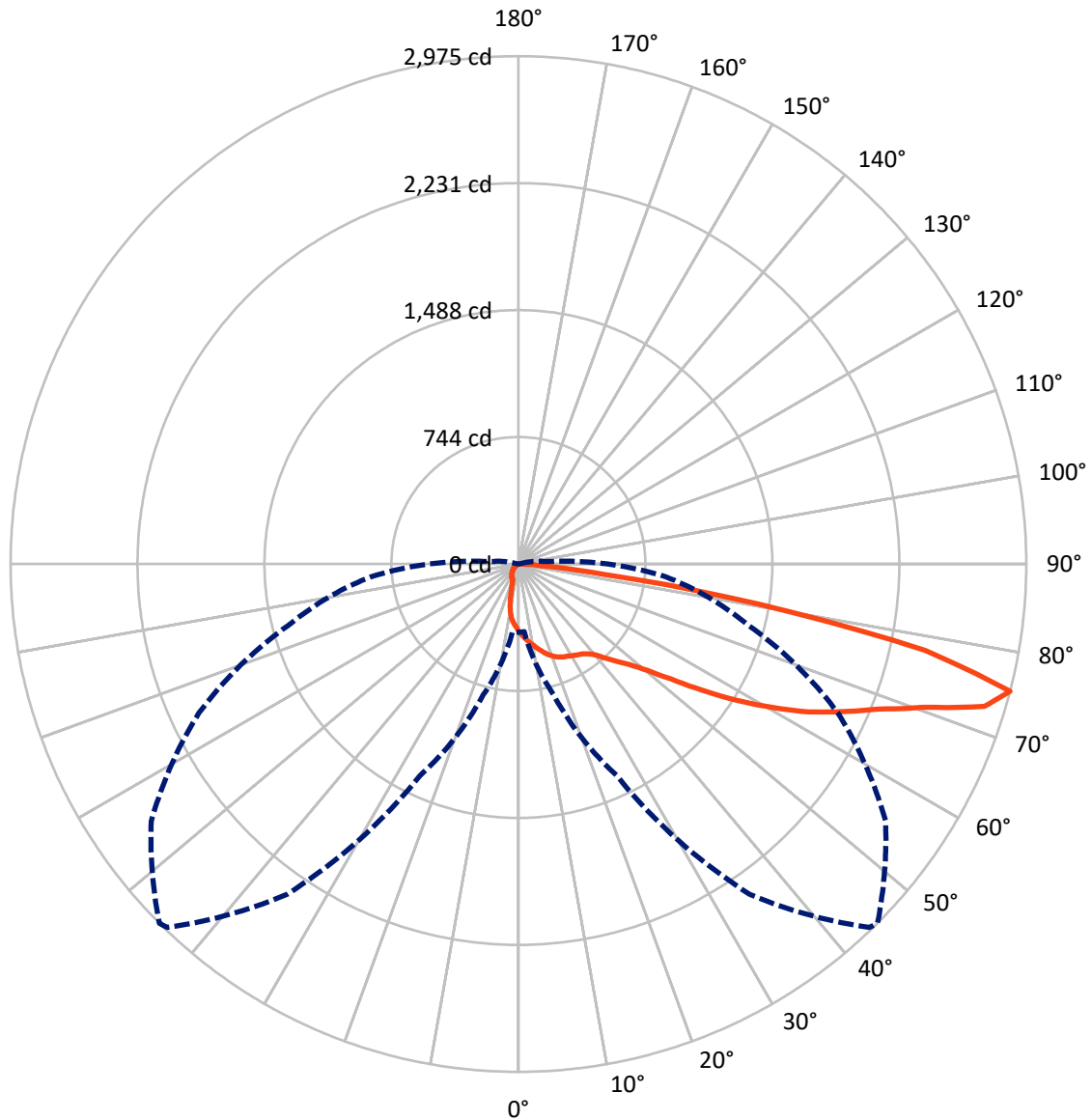
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.3 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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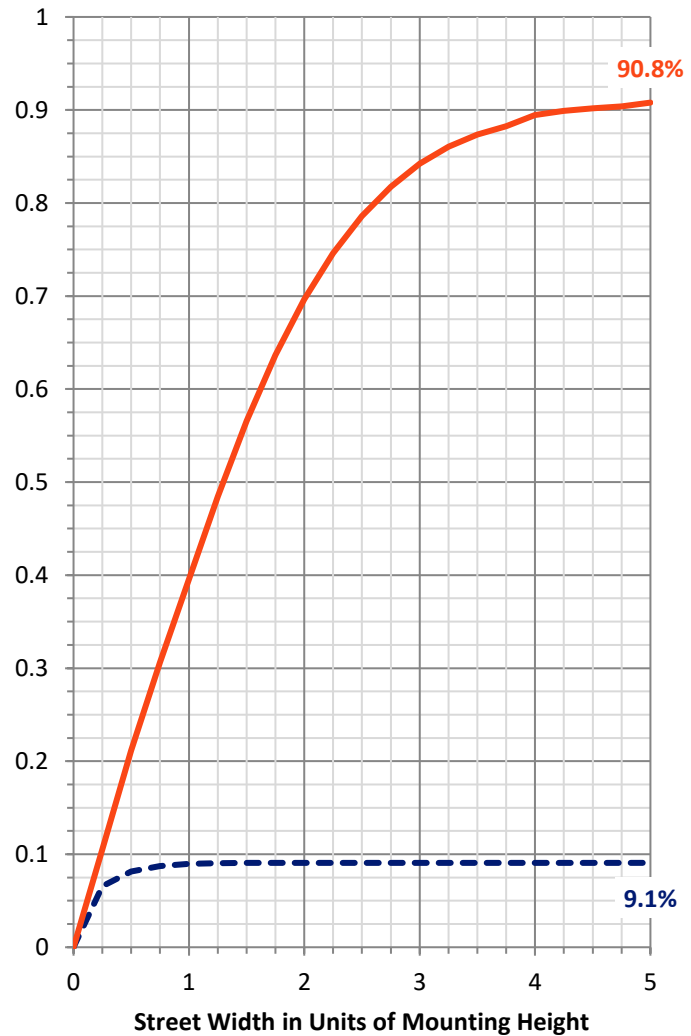
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	338.4	0.0	338.4
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	3361.6	0.0	3361.6
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	3700.0	0.0	3700.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.3	1.0
10°-20°	105.8	2.9
20°-30°	175.2	4.7
30°-40°	253.6	6.9
40°-50°	415.3	11.2
50°-60°	739.9	20.0
60°-70°	1087.8	29.4
70°-80°	820.6	22.2
80°-90°	64.4	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	3700.0	100.0
0°-180°	3700.0	100.0



--- HS    — SS

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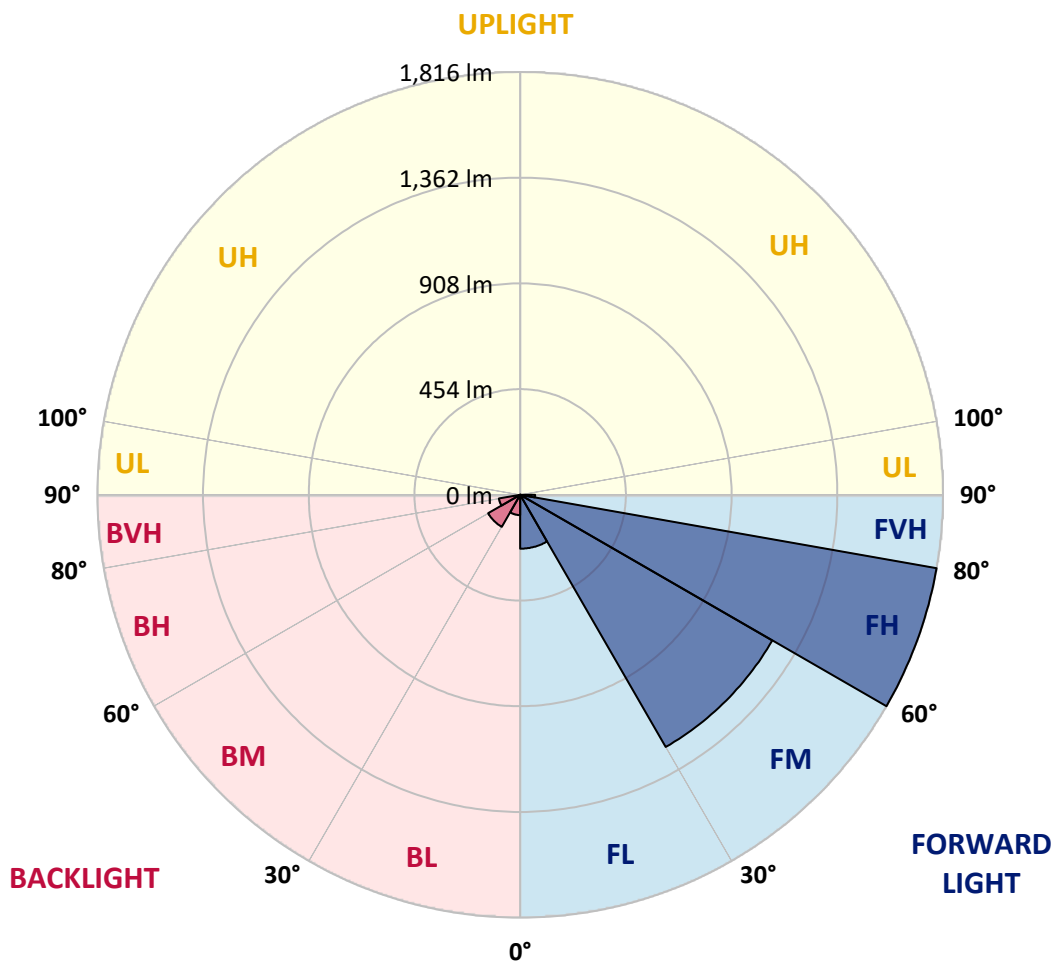
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	231.4	6.3			
FM (30°-60°)	1250.2	33.8			
FH (60°-80°)	1815.7	49.1			G2/5000
FVH (80°-90°)	64.2	1.7			G1/100
BL (0°-30°)	87.0	2.4	B0/110		
BM (30°-60°)	158.6	4.3	B0/220		
BH (60°-80°)	92.7	2.5	B0/110		G0/110
BVH (80°-90°)	0.2	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G2**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8
2.5°	429.8	429.8	429.0	428.1	423.7	419.4	418.5	415.8	408.0	402.7	397.5
5°	465.7	466.7	464.9	460.5	450.9	441.3	440.4	433.4	418.5	408.0	396.6
7.5°	499.9	501.7	497.3	489.4	478.0	464.0	463.2	450.0	430.8	415.8	399.3
10°	528.9	528.9	522.7	513.0	500.8	485.9	484.2	469.3	447.4	429.0	407.1
12.5°	560.4	559.5	550.7	537.6	523.5	509.5	508.7	490.3	469.3	445.6	418.5
15°	589.2	587.5	576.1	563.9	548.9	534.1	533.2	514.9	493.0	464.9	435.2
17.5°	605.0	604.2	593.6	581.3	569.1	557.7	556.8	537.6	513.9	485.1	451.7
20°	607.6	608.5	599.8	589.2	582.3	576.1	576.1	558.6	533.2	502.6	469.3
22.5°	608.5	611.1	605.0	591.0	589.2	590.1	591.9	577.9	551.6	522.7	487.6
25°	614.6	618.2	613.8	597.1	595.4	601.5	603.2	597.1	573.5	544.6	508.7
27.5°	626.9	630.3	626.9	605.9	603.2	609.4	611.1	614.6	597.1	565.6	530.6
30°	651.4	652.2	644.4	618.2	612.8	620.7	623.4	633.0	619.0	585.7	551.6
32.5°	694.3	685.6	661.8	626.9	622.5	631.3	633.9	644.4	639.1	605.0	573.5
35°	781.8	736.3	682.0	639.1	634.7	643.5	647.0	661.8	664.5	632.1	600.6
37.5°	780.9	739.8	729.3	662.8	656.6	662.8	667.2	685.6	696.0	668.0	640.0
40°	836.2	818.6	818.6	707.5	687.3	696.0	700.4	718.8	737.2	715.3	686.4
42.5°	1009.4	998.1	985.8	793.2	730.2	754.7	757.3	768.7	790.6	783.6	749.4
45°	1203.0	1192.5	1145.2	938.6	803.7	808.1	814.3	832.6	864.2	877.3	837.0
47.5°	1354.4	1344.0	1303.6	1113.7	918.4	879.9	879.9	915.8	964.8	998.1	959.5
50°	1476.1	1463.8	1439.4	1300.2	1106.6	983.3	977.9	1020.0	1092.6	1144.3	1118.1
52.5°	1594.4	1558.5	1543.5	1492.8	1319.4	1132.9	1118.9	1148.7	1249.3	1313.3	1291.4
55°	1673.1	1667.9	1652.1	1669.7	1542.7	1315.0	1302.7	1308.9	1435.0	1477.9	1450.7
57.5°	1746.7	1745.8	1780.9	1862.3	1786.1	1523.4	1504.1	1494.5	1614.4	1604.0	1627.6
60°	1837.7	1822.0	1903.4	2019.8	2009.3	1726.5	1704.6	1685.4	1751.9	1722.1	1839.5
62.5°	1842.1	1837.7	2003.2	2170.4	2230.9	1933.2	1907.8	1838.5	1871.9	1837.7	2041.7
65°	1674.9	1696.8	2045.2	2250.1	2416.4	2114.4	2083.8	1976.0	1978.7	1955.9	2279.9
67.5°	1637.2	1648.6	1929.7	2335.9	2550.4	2297.3	2268.5	2134.5	2103.0	2104.7	2420.8
70°	1543.5	1561.0	1786.1	2329.8	2656.3	2541.6	2512.8	2367.4	2291.2	2206.3	2312.3
72.5°	1179.4	1209.1	1505.1	2042.6	2627.4	2861.2	2853.3	2662.4	2366.5	2026.0	1749.2
75°	399.3	398.3	790.6	1372.0	2360.5	2959.3	2975.0	2625.7	2064.5	1397.4	868.5
77.5°	85.8	86.6	162.9	556.0	1568.1	2376.2	2436.6	1980.4	1331.7	622.5	198.8
80°	42.0	42.9	67.4	147.1	626.9	1332.5	1427.1	1018.2	492.0	124.3	33.2
82.5°	21.0	21.9	35.0	77.9	232.0	473.6	506.1	374.7	141.0	70.1	16.7
85°	7.9	7.9	17.5	46.4	106.0	111.2	136.6	108.5	84.9	56.9	4.4
87.5°	1.7	1.7	9.6	22.8	47.3	35.0	35.0	33.2	51.7	38.6	1.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8
2.5°	394.9	391.4	385.2	379.1	374.7	369.5	366.8	364.2	363.4	362.4	364.2
5°	390.5	385.2	373.9	364.2	355.5	348.4	343.2	338.0	335.3	333.6	334.4
7.5°	390.5	382.6	366.0	351.1	337.1	322.2	307.3	295.9	287.1	281.9	282.7
10°	394.9	384.3	362.4	342.3	316.1	284.6	252.2	227.6	211.0	201.4	201.4
12.5°	404.5	390.5	363.4	331.8	287.1	232.0	183.0	153.2	141.0	133.9	134.8
15°	417.7	401.0	367.8	317.8	246.9	172.5	127.9	108.5	108.5	110.3	111.2
17.5°	432.5	414.1	371.2	296.8	195.3	123.5	100.7	98.9	101.6	106.0	106.0
20°	447.4	427.3	373.0	263.5	146.2	98.1	95.4	95.4	97.2	101.6	102.4
22.5°	465.7	443.9	371.2	222.4	109.5	92.8	92.0	92.0	92.0	97.2	97.2
25°	485.1	463.2	364.2	178.6	92.8	89.3	88.4	87.6	87.6	92.0	92.8
27.5°	507.0	483.2	347.6	136.6	87.6	85.8	84.9	83.2	83.2	86.6	86.6
30°	528.9	506.1	322.2	103.3	83.2	82.3	80.5	78.8	77.0	80.5	80.5
32.5°	552.5	529.7	288.9	82.3	77.0	77.0	76.2	73.6	71.8	73.6	74.4
35°	584.0	556.8	251.2	71.8	69.2	69.2	69.2	68.3	64.8	66.5	66.5
37.5°	626.0	594.4	207.5	66.5	63.0	61.3	61.3	61.3	58.6	59.5	59.5
40°	679.4	638.2	165.5	62.2	58.6	54.3	52.6	53.4	51.7	51.7	50.7
42.5°	752.1	685.6	124.3	58.6	55.1	49.0	45.5	44.6	42.9	42.0	42.0
45°	856.3	743.3	89.3	55.1	52.6	42.9	39.4	36.7	32.4	29.8	29.8
47.5°	991.1	808.9	66.5	51.7	49.9	37.6	33.2	28.0	21.9	20.2	20.2
50°	1155.7	882.5	56.1	46.4	45.5	33.2	26.3	18.4	12.3	10.5	11.4
52.5°	1315.9	951.7	49.9	41.1	40.3	28.8	19.2	9.6	5.2	5.2	5.2
55°	1450.7	1000.8	45.5	36.7	35.0	22.8	10.5	4.4	2.7	2.7	2.7
57.5°	1572.5	1028.8	41.1	32.4	28.0	15.8	4.4	1.7	1.7	0.9	0.9
60°	1683.7	1045.4	35.9	28.0	21.9	8.8	1.7	0.9	0.9	0.0	0.0
62.5°	1793.0	1057.6	30.7	22.8	16.7	3.5	0.9	0.9	0.0	0.0	0.0
65°	1876.3	1053.2	24.6	18.4	10.5	1.7	0.9	0.0	0.0	0.0	0.0
67.5°	1873.6	993.7	18.4	14.0	5.2	0.9	0.0	0.0	0.0	0.0	0.0
70°	1675.8	837.0	12.3	8.8	1.7	0.9	0.0	0.0	0.0	0.0	0.0
72.5°	1189.0	536.7	7.9	5.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0
75°	523.5	162.9	4.4	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	102.4	37.6	2.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	24.6	4.4	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	10.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)